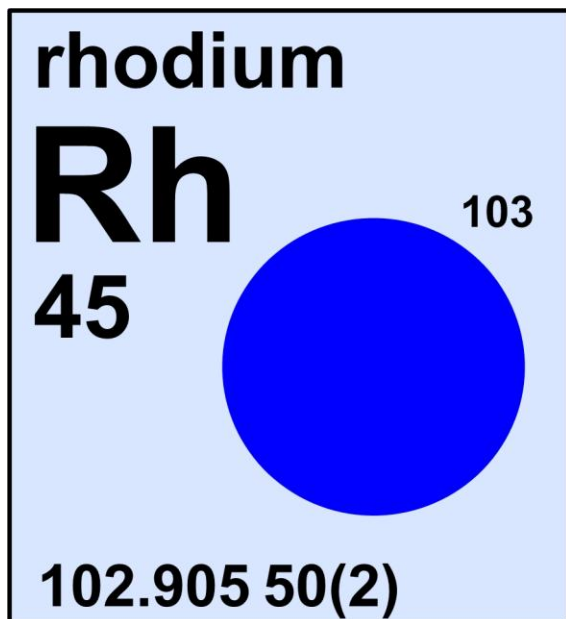


rhodium

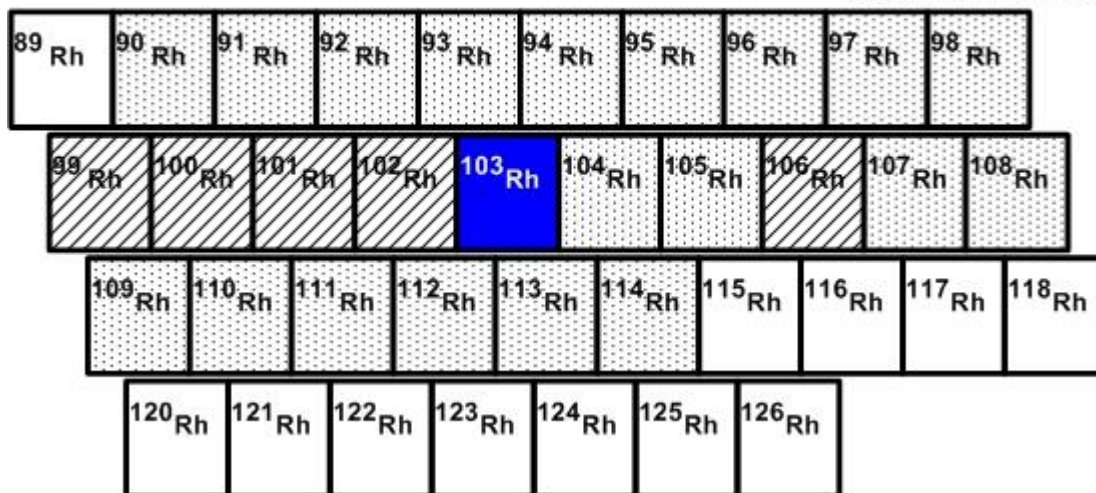


Stable isotope	Atomic mass*	Mole fraction
^{103}Rh	102.905 504	1.0000

* Atomic mass given in unified atomic mass units, u.

Half-life of radioactive isotope

Less than 1 second
 Between 1 second and 1 hour
 Greater than 1 hour



Important applications of stable and/or radioactive isotopes

Isotopes in medicine

- 1) ^{105}Rh is one of many high specific radioisotopes used in target radiotherapy to find cancer cells and eradicate them. ^{105}Rh beta particles allow them to kill the cancer cells or cause cancer cell sterilization.
- 2) The gamma rays from ^{105}Rh allow for in vivo tracking.
- 3) The ^{105}Rh is extracted from its parent isotope ^{104}Ru .

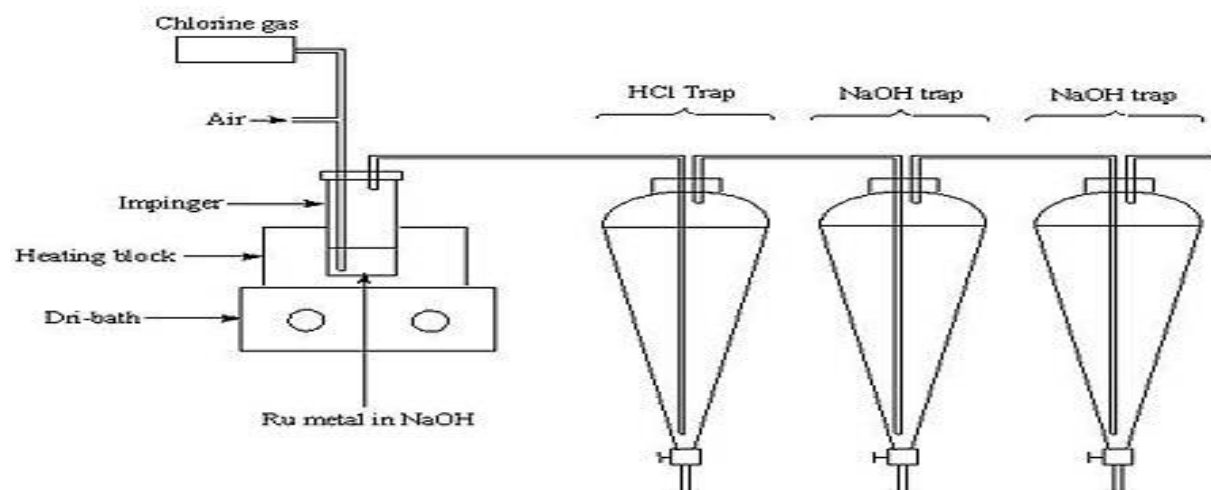


Figure 1: Diagram of an apparatus used to extract ^{105}Rh from ^{104}Ru .